

Work Order ID 93261

93261

Page 1

November-15-12 10:41:14 AM

Item ID: 646.3313

Accept

N900040100

Setup S

tart *NS1*

Stop *NS2*

Revision ID:

Item Name: Upper Guide

Start Date: 11/15/12 Start Qty: 20.00

20

Cust Item ID

Required Date: 12/07/12 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: W15

Date: 17-11-15 Tooling

Date:

Run

Start *NR1*

OC:

Date: **SPC (Y/N)**

Date:

Stop *NP2*

2- deburr and break all sharp edge

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No. _____		Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____		Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
		Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
		Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled

Work Order ID 93261

93261

Page 2

November-15-12 10:41:14 AM

Item ID: 646.3313

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Upper Guide

Start Date: 11/15/12 Start Qty: 20.00

20

Cust Item ID:

Required Date: 12/07/12 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB	0.00	<i>on 12/11/20</i>			20	0		DAS 14 9-89
130 *130* QC Quality Control	QC8- Inspect parts - second check	0.00	<i>20</i>						DAS 25 9-89 12-11-21
131 *131* HandFinish Hand Finishing	Memo CLEAN AND REMOVE ALL PART MARKING	0.00	<i>20 12-11-21</i>						

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date:

QA Closed: _____ Date: _____

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>			
Part No. _____											
NCR No. _____											
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending		Bend		Grain		Ovalized		Pressure/Forced			
Centre Not Concentric to O/S		BOM/Route		Hardware		Over/Under tolerance		Temperature/Cure			
Cracks		Broken/Damaged		Inspection Incomplete		Part Incorrect		Weld			
Crushed/Crimped		Burrs		Instructions Incomplete/Unclear		Part Lost/Missing		Wrong Stock Pulled			
Cuffs		Contamination		Maintenance		Part Moved					
Heat Treat		Countersink		Mislabeled		Positioned Wrong					
Inspection Strip in Tube		Cut Too Short		Misread		Power Loss/Surge					
Ripples in Bend		Drill Holes		Offset							
Torque Waves in Extrusion		Drawing		Out of Calibration							
Turning Sequence		Finish		Out of Sequence							
Wave/Twist in Tube		Folio		Outside Dimensions							

Work Order ID 93261

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Page 3

November-15-12 10:41:14 AM

Item ID: 646.3313

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Upper Guide

Start Date: 11/15/12 Start Qty: 20.00

20

Cust Item ID:

Required Date: 12/07/12 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140

140

Outsource4

Outsource process-Anodize per QSI017 4.1.10.1

0.00

PL 12-11-26

Outsource process - Anodize

Memo

0.00

Issue P/O: 18506

Black Anodize as per Dwg 646.3300

150

150

Packaging

Receive & Inspect for Damage & Mat'l Certs

0.00

F-12/11/18 (2)

Packaging

Memo

0.00

155

155

QC

QC5- Inspect part completeness to step on W/O

0.00

20 DAS 05 12.12.23
9-89

Quality Control

Memo

0.00

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date:

QA Closed: _____ Date: _____

Work Order ID 93261

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Page 4

November-15-12 10:41:14 AM

Item ID: 646.3313

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Upper Guide

Stop

NS2

Start Date: 11/15/12 Start Qty: 20.00

20

Cust Item ID:

Required Date: 12/07/12 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

160

SprayPaint

Spray Painting

Spray Painting per QSI005 4.2

0.00

20

Ø

Ø

Ø

12-12-31

170

170

QC

Quality Control

QC14- Inspect Spray Paint

0.00

20

DAS

05

9-09 13.01.05

180

180

Packaging

Packaging

Identify as per dwg & Stock Location: B9E

0.00

Memo

0.00

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

PC 13745 20

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date: . .

QA Closed: Date:

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other			
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence Wave/Twist in Tube				General							
				Bend BOM/Route Broken/Damaged Burr Contamination Countersink Cut Too Short Drill Holes Drawing Finish Folio	Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabelled Misread Offset Out of Calibration Out of Sequence Outside Dimensions	Ovalized Over/Under tolerance Part Incorrect Part Lost/Missing Part Moved Positioned Wrong Power Loss/Surge	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled	Other			

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Page 5

November-15-12 10:41:14 AM

Item ID: 646.3313

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Upper Guide

Start Date: 11/15/12 Start Qty: 20.00

20

Cust Item ID:

Required Date: 12/07/12 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00

13/1/10

190

QC

Quality Control

Memo

0.00

MF

13-01-09

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date:

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS									
			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>								
Part No. _____															
NCR No. _____															
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector						
Doc/Data															
Equip/Tooling															
Operator															
Material															
Setup															
Other															
Process															
Supplier															
Training															
Unapproved															
FAULT CATEGORY															
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio		<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled			
														<input type="checkbox"/> Other	

Picklist Print

November-15-12 10:41:13 AM

Page 1

Work Order ID: 93261

Parent Item: 646.3313

Parent Item Name: Upper Guide

Start Date: 11/15/12

Required Date: 12/07/12

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP REV:A NEW ISSUE 12/11/14 JFS VERIFY BY: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B5.000X0.375 7075-T6 BAR 5.000" X 0.375"		Purchased	No			100	f	99.1620	0.563	11.852632		PO	12/11/17

Location	Loc Qty	Loc Code
MAT	51.162	
123218	51.162	
MAT008	48	
123418	48	1133

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
NCR No. _____			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear				General						
				Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>		
				BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>			
				Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>			
				Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>			
				Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>				
				Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>				
				Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>			
				Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>					
				Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>					
				Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>					
				Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>					

DART AEROSPACE LTD	Work Order:	93261
Description: UPPER GUIDE	Part Number:	141-3313
Inspection Dwg: 141-3300 Rev: N/C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

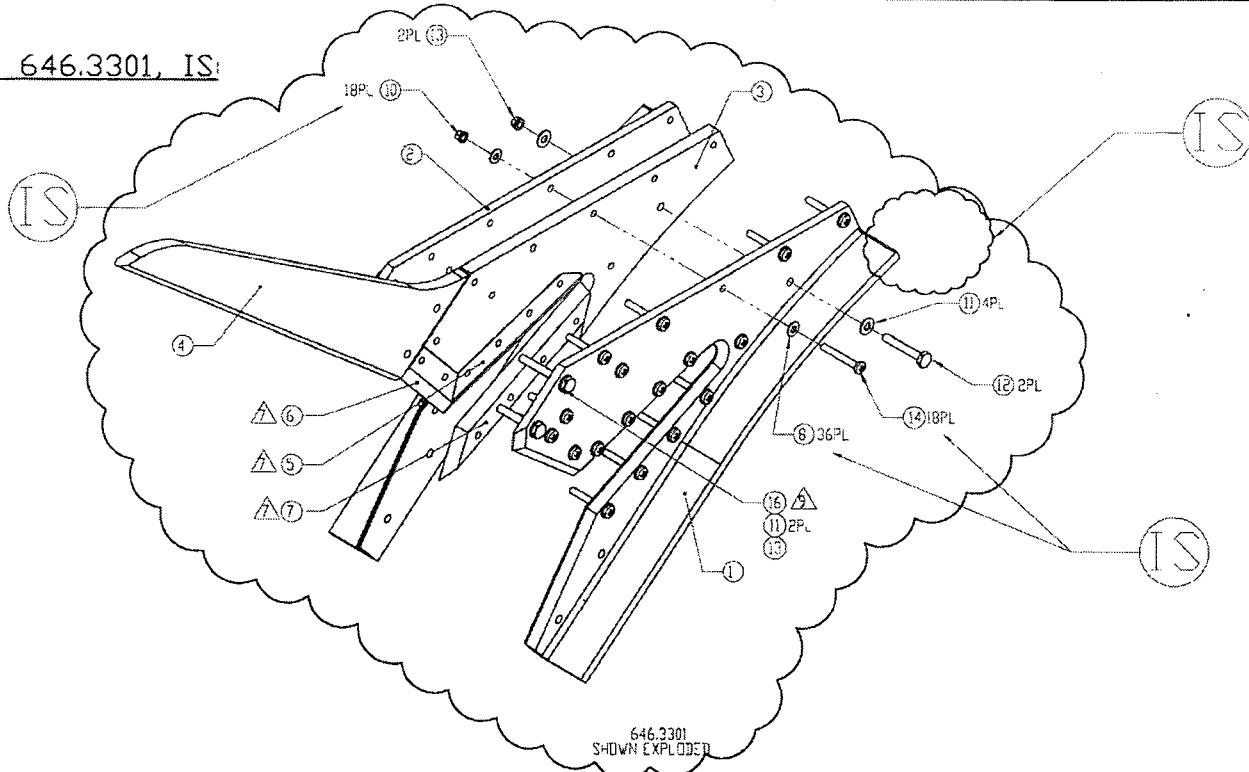
Measured by:	<i>ANL</i> 14	DAS	
Date:	12/11/2009	25	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02196				SHEET 1 OF 2			
	DWG NO. 646.3300		REV: N/C	PREPARED BY S. HUFF	DATE: 01/05/09		EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
	DWG TITLE: UPPER CUTTER ASSY							
	APPROVED BY:	ENGR: <i>P. Brano</i>	MFG: <i>Don Embel</i>	QC: <i>SSF</i>				EFF: NEXT ORDER
	TRANSACTION CODES (TC):		REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS <i>SSF</i>					
	A-ADD R-REVISE	C-CREATE D-DELETE						

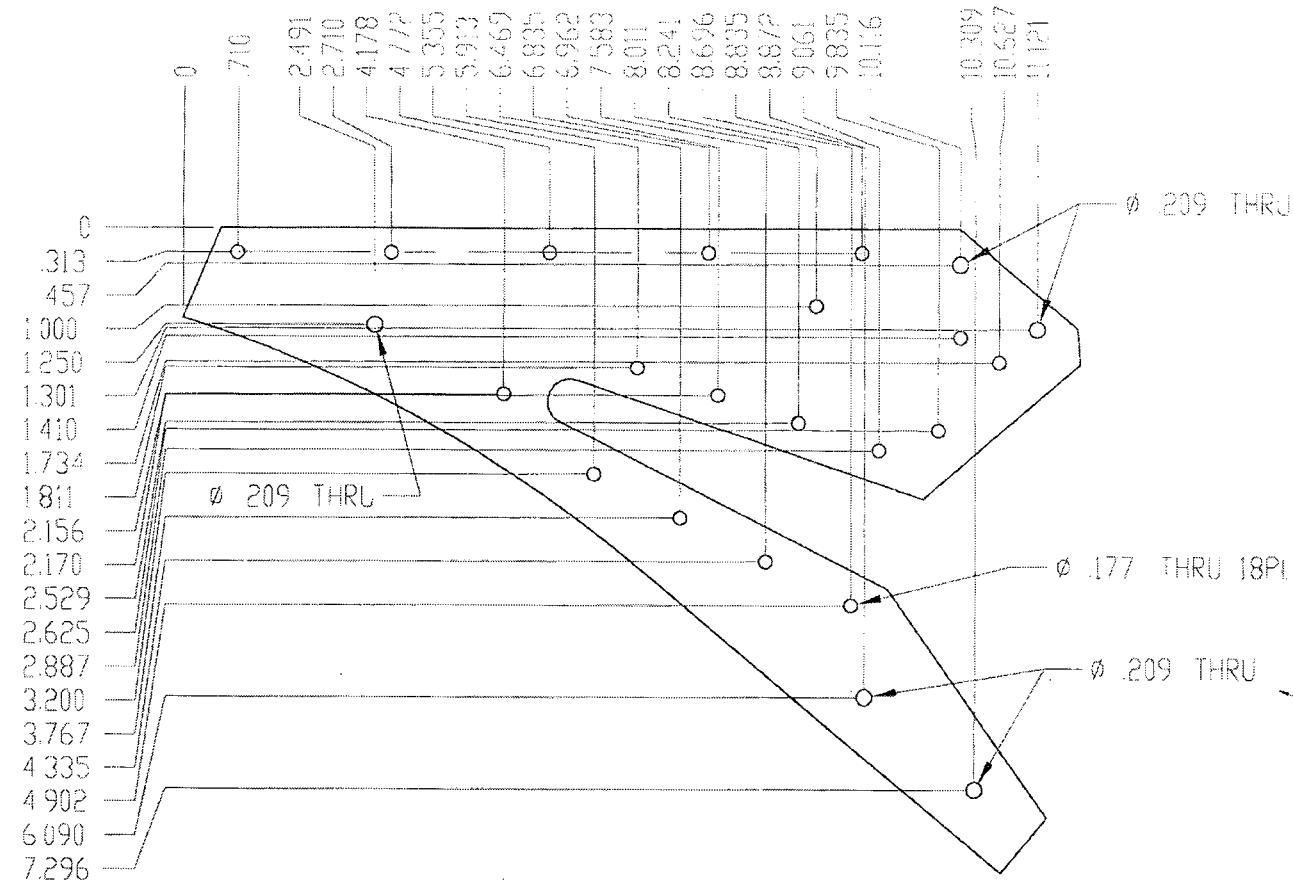
SHEET 1, VIEW 646.3301, IS:



1. IS COPY
 2. RETURN TO
 ENGINEERING
 3. CONTROLLED COPY
 4. ACT TO AMENDMENT
 5. HUFF NOTICE
 6. WORK ORDER
 9326-1-MCJ
 12-11-15

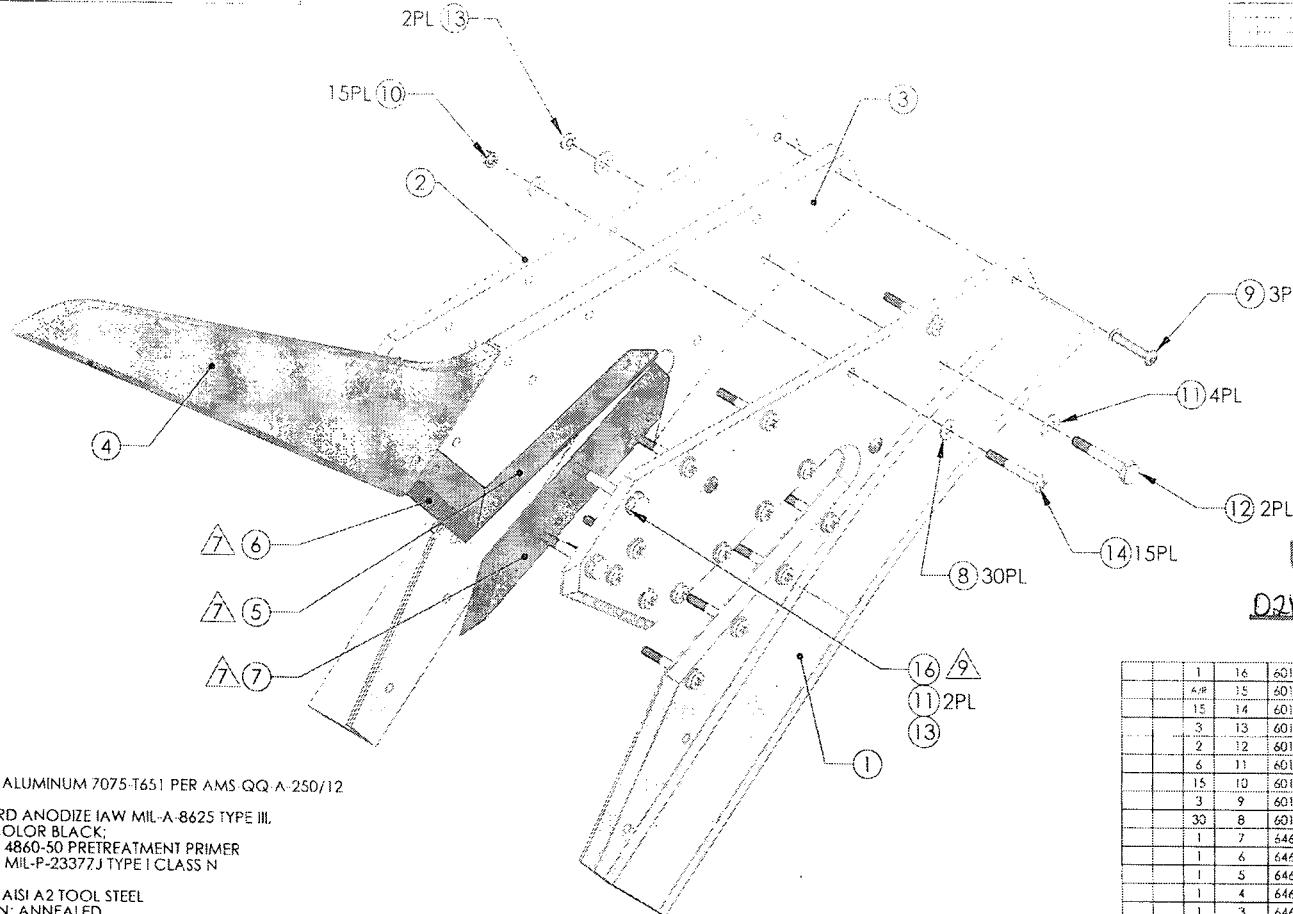
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
14	R	601.2765	18	SCREW	MS27039-0819
10	R	601.1541	18	LOCKNUT	MS21042L08
9	D	601.2766	3	RIVET	MS20470AD5-18
8	R	601.2764	36	WASHER	NAS1149FN832P
			3301		
DOCUMENTS EFFECTED:				CHANGE CATEGORY	DER REVIEW REQUIRED
<input type="checkbox"/> MDL <input checked="" type="checkbox"/> INSTALL INSTRUC <input checked="" type="checkbox"/> ICA <input type="checkbox"/> FMS <input checked="" type="checkbox"/> BOM				<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

SHEET 3, SECTION VIEW A-A, IS:

SECTION A-A 26

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION

93261



NOTES:

△ MATERIAL: ALUMINUM 7075-T651 PER AMS QQ-A-250/12

△ FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III,
CLASS 2, COLOR BLACK;
CARDINAL 4860-50 PRETREATMENT PRIMER
PRIME IAW MIL-P-23377J TYPE I CLASS N

△ MATERIAL: AISI A2 TOOL STEEL
CONDITION: ANNEALED
POST PROCESS: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS

△ FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N

D. 5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED

6. IDENTIFY IAW MPP-120

△ APPLY F/N 15 AS REQUIRED TO ALL FAYING SURFACES OF F/N 5, 6 & 7 UPON ASSEMBLY

△ CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE

△ INSTALL FASTENER FINGER-TIGHT

646.3301
SHOWN EXPLODED

UNINCORPORATED ECN(s)

D2196

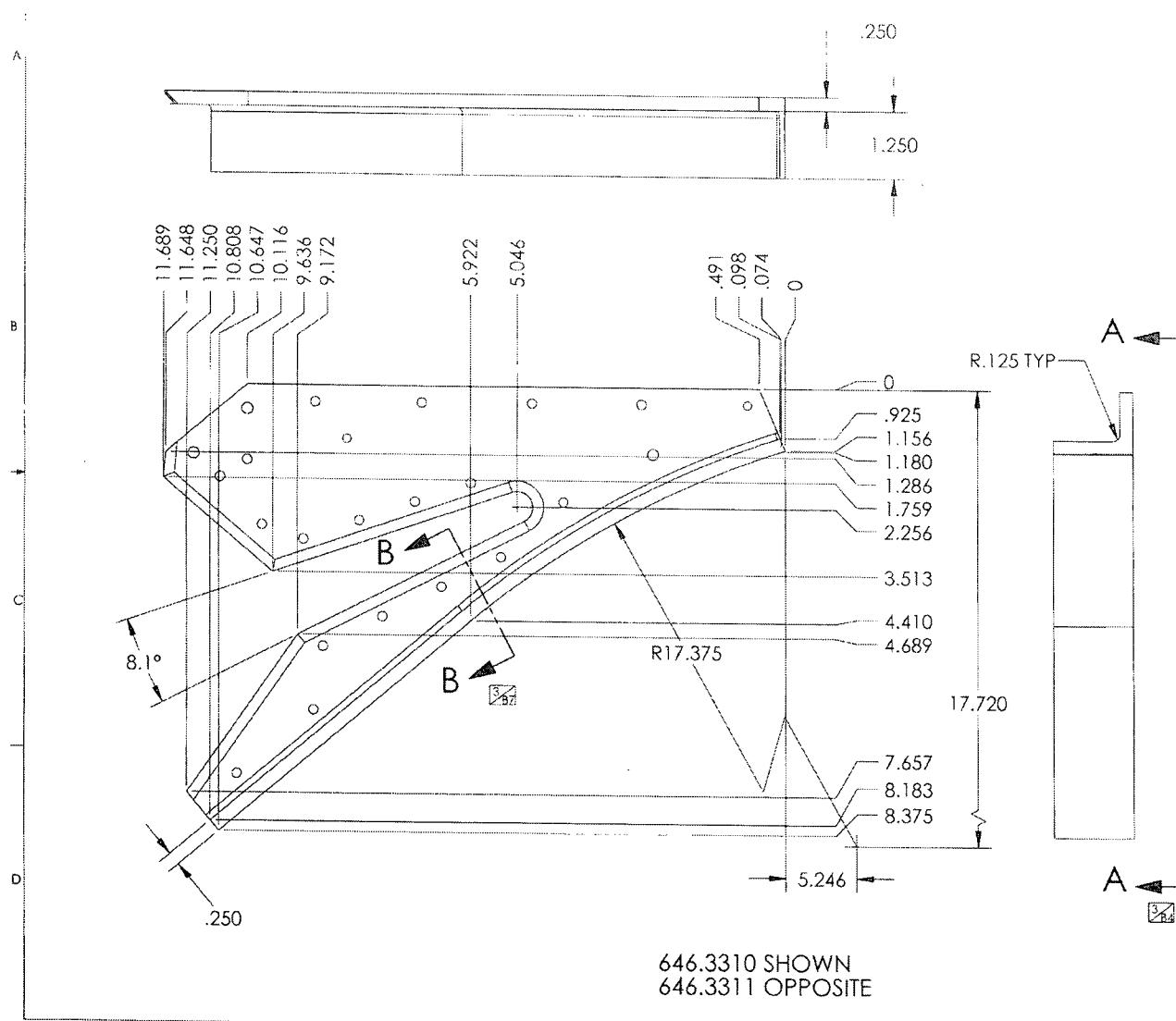
QTY	FIND #	PART #	DESCRIPTION		MATERIAL	SPEC.
			PARTS LIST			
1	16	601.2834	BOLT	AN6-12A		
4	15	601.2045	RTV, LOCTITE 598			
15	14	601.2765	SCREW	M5/7034-6014		
3	13	601.1624	LOCKNUT	M52/14213		
2	12	601.2763	BOLT	AN5-12A		
6	11	601.1607	WASHER	M52/1420329		
15	10	601.1541	LOCKNUT	M52/142138		
3	9	601.2764	RIVET	M52/14204-05-16		
30	8	601.2764	WASHER	M431469M327P		
1	7	646.3316	BLADE	△		
1	6	646.3315	BLADE	△		
1	5	646.3314	BLADE	△		
1	4	646.3313	UPPER GUIDE	△		
1	3	646.3312	CENTER PLATE	△		
1	2	646.3311	RH HALF	△		
1	1	646.3310	LH HALF	△		
		646.3301	UPPER CUTTER ASSY			
		PARTS LIST				
NEXT ASSY (\$)		OPTIONAL DATE IND 04-18 68-20-28				
S-NUM:		P-BRAVO				
DRAWING APPROVAL		P-BRAVO				
CONTRACTING		P-BRAVO				
UNLESS OTHERWISE SPECIFIED TOLERANCES IN INCHES 1.000 = 0.000 2.000 = 0.000 3.000 = 0.000 4.000 = 0.000		SET C4120001 Dwg. No. 646.3300		REV	N/C	
SCALE: NONE		8 07/26				
		SHEET 1 OF 8				

APICAL INDUSTRIES

2608 TEMPLE HEIGHTS DR,
OCEANSIDE, CA 92056-3512 (760)724-5300

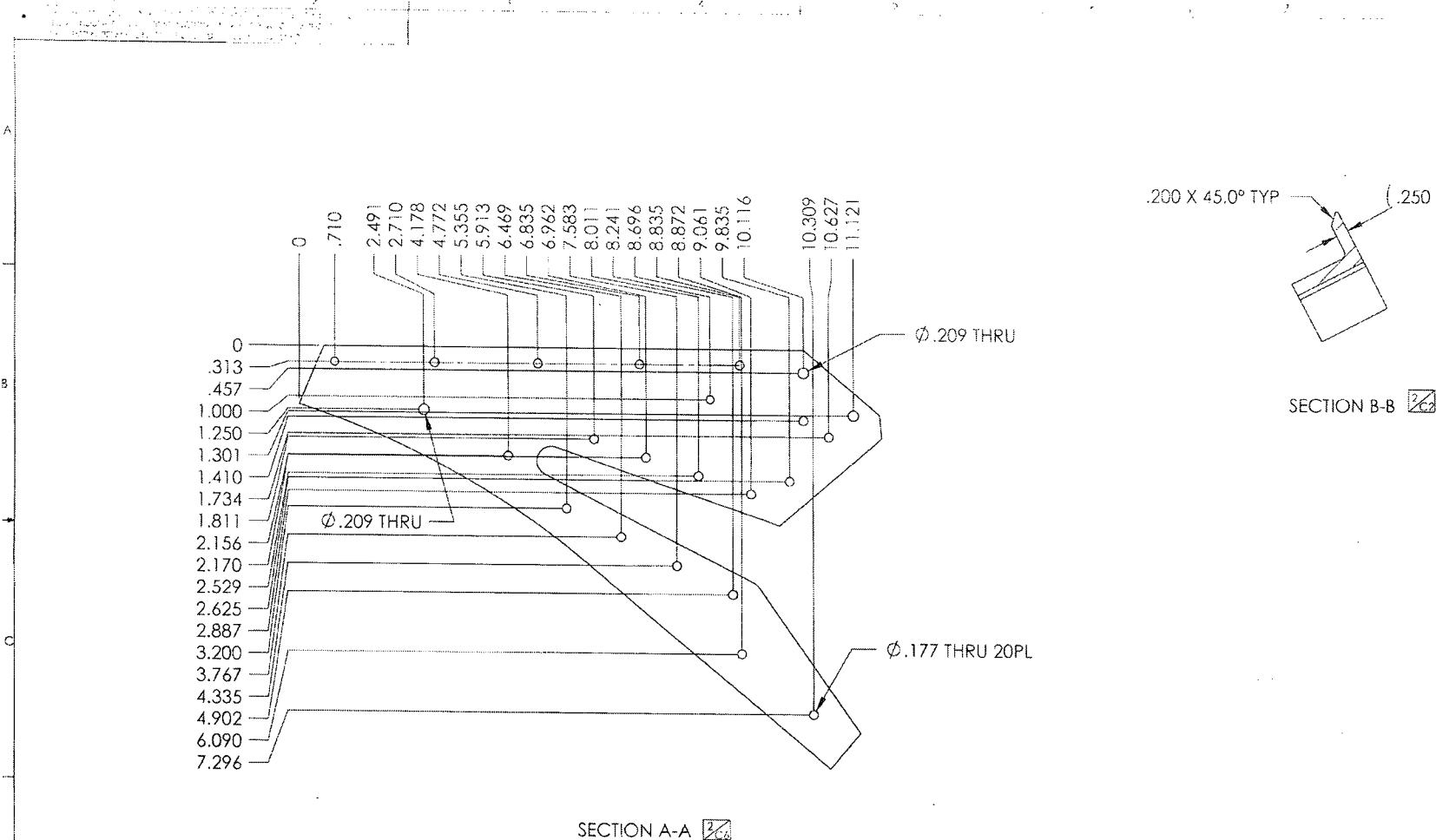
UPPER CUTTER ASSY

93261



ORIGINAL DATE	08-26-04
DESIGNER	P BRAVO
SUPERVISOR	P BRAVO
ENGINEER APPROVAL	P BRAVO
COMPONENT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACES ± .001 3 PLACES DECIMALS ± .001 2 PLACES ± .01	
SCALE: NONE	646.3300
REV: B	07M26
DATE: 08-26-04	2 OF 8

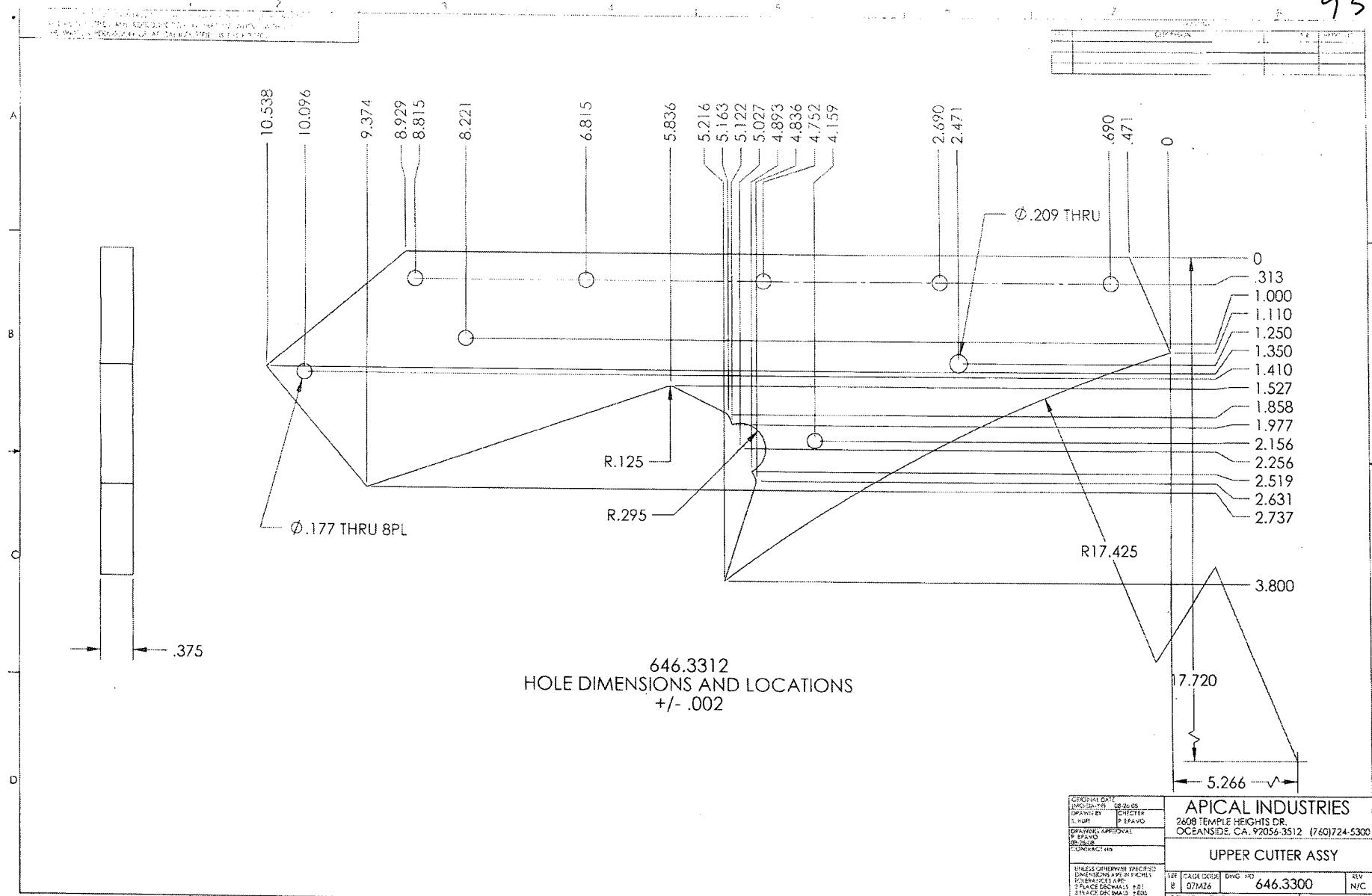
9326



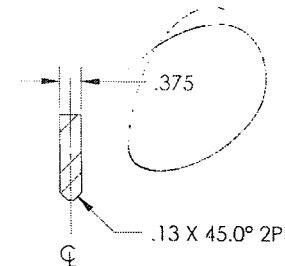
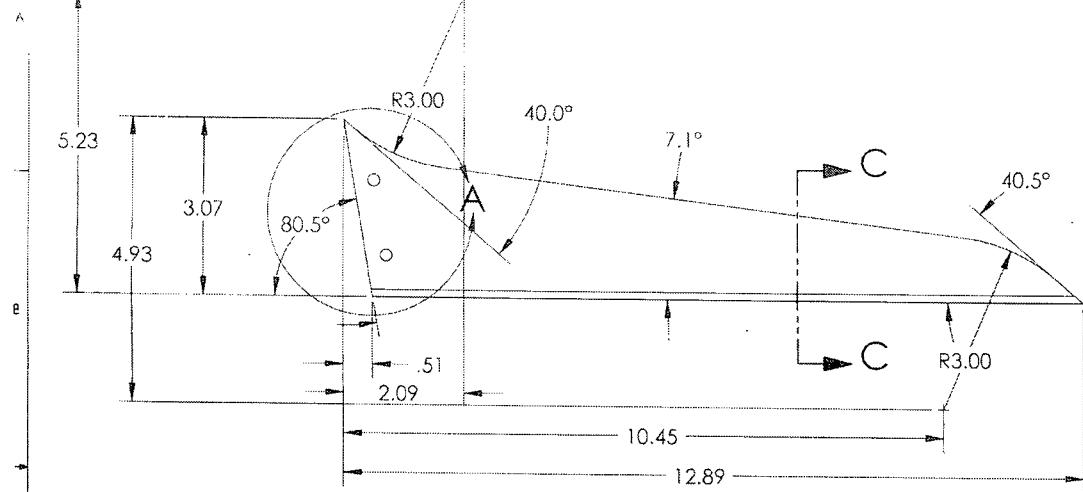
SECTION A-A 

OPTIONAL DATE MATERIALS- PRINTED- DRAWN BY C.HUFF		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92055-3512 (760)724-5301		
DRAWING APPROVAL CONTRACTS		UPPER CUTTER ASSY		
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES ARE ±0.05 LEADS ARE 3° ANGLES ARE ±5°		REV 07/07/00	646.3300	NIC
SCALE NONE		1 SHEET 3 OF 8		

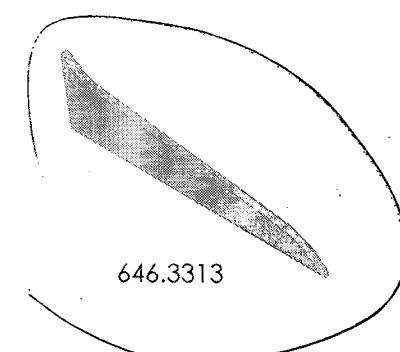
93261



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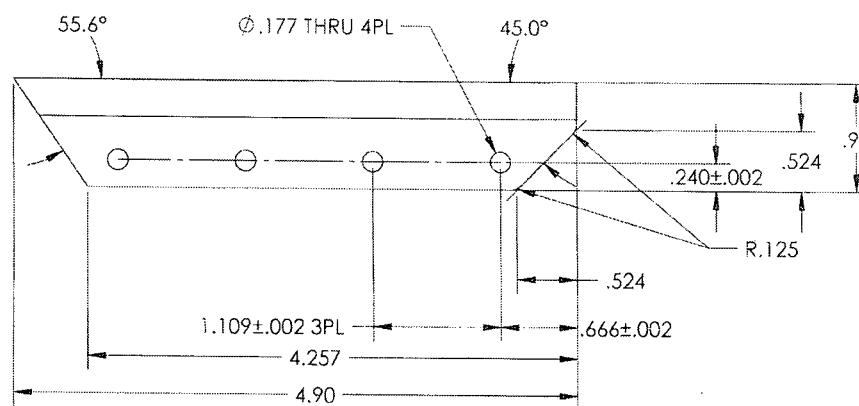
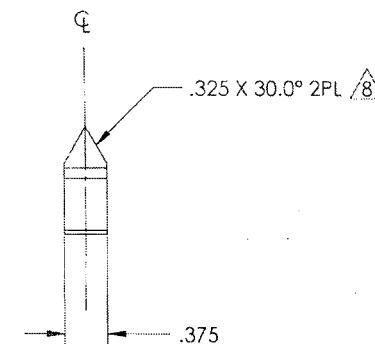
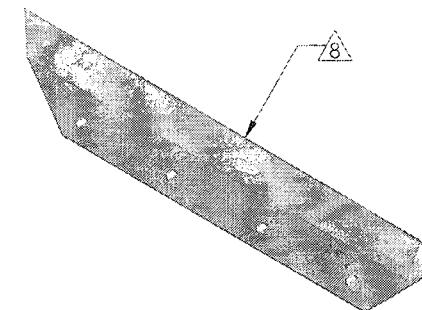
SECTION C-C



DETAIL A

ORIGINAL DATE INCHES/IPS	10-29-08	APPLICABLE SPECIFICATION	None
LINE NUMBER	000410	REVISION	0
DRAWING APPROVAL	P-142-00	DESIGNER	None
CONTRACTOR	None	CONTRACT NO.	None
ITEM NO.	None	DATE ISSUED	None
DETAILS OF DRAWING SPECIFIED IN INCHES AND FRACTIONAL INCHES	None	SCALE	None
INCHES	None	REV.	N/C
DECIMALS	None	DATE	None
0.0001	None	07M16	646.3300
ANGLE	2.5°	SECTION	5 OF 5

93261



646.3314

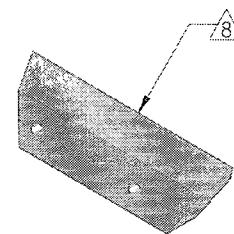
ORIGINAL DATE 08-22-03	APICAL INDUSTRIES
DESIGNED BY: <input checked="" type="checkbox"/> DRAWS X HLD <input type="checkbox"/> P.DRAW	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300
DRAWING APPROVAL P. SPACI P. DRAWS P. APPROVAL	
CO. APPROVAL	
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES. TOLERANCES: .010 SURFACE DEGRADATION: 100 ANGLES: ± 5°	SCALE: <input type="checkbox"/> 1/4" = 1'-0" <input type="checkbox"/> 1/8" = 1'-0" <input type="checkbox"/> 1/16" = 1'-0" <input type="checkbox"/> 1/32" = 1'-0" <input type="checkbox"/> 1/64" = 1'-0"
DATE: 08-22-03 B 07M26	646.3300
SCALE: <input type="checkbox"/> NONE	SHEET: 6 OF 8

93261

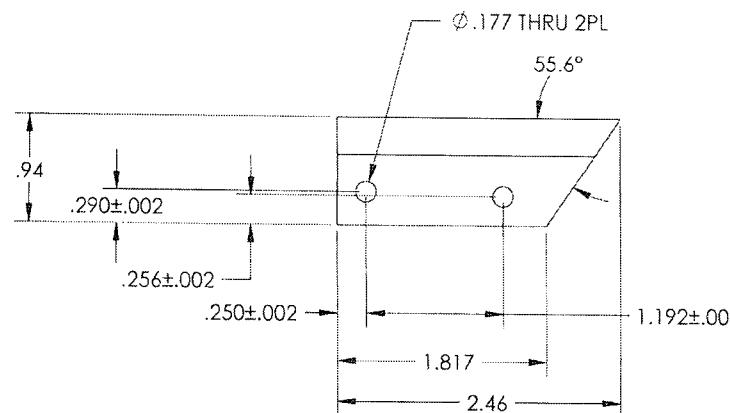
APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

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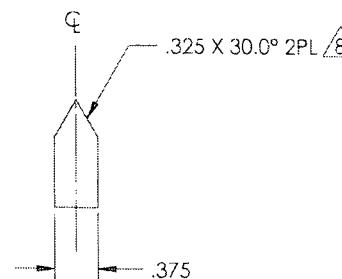
A



B



C

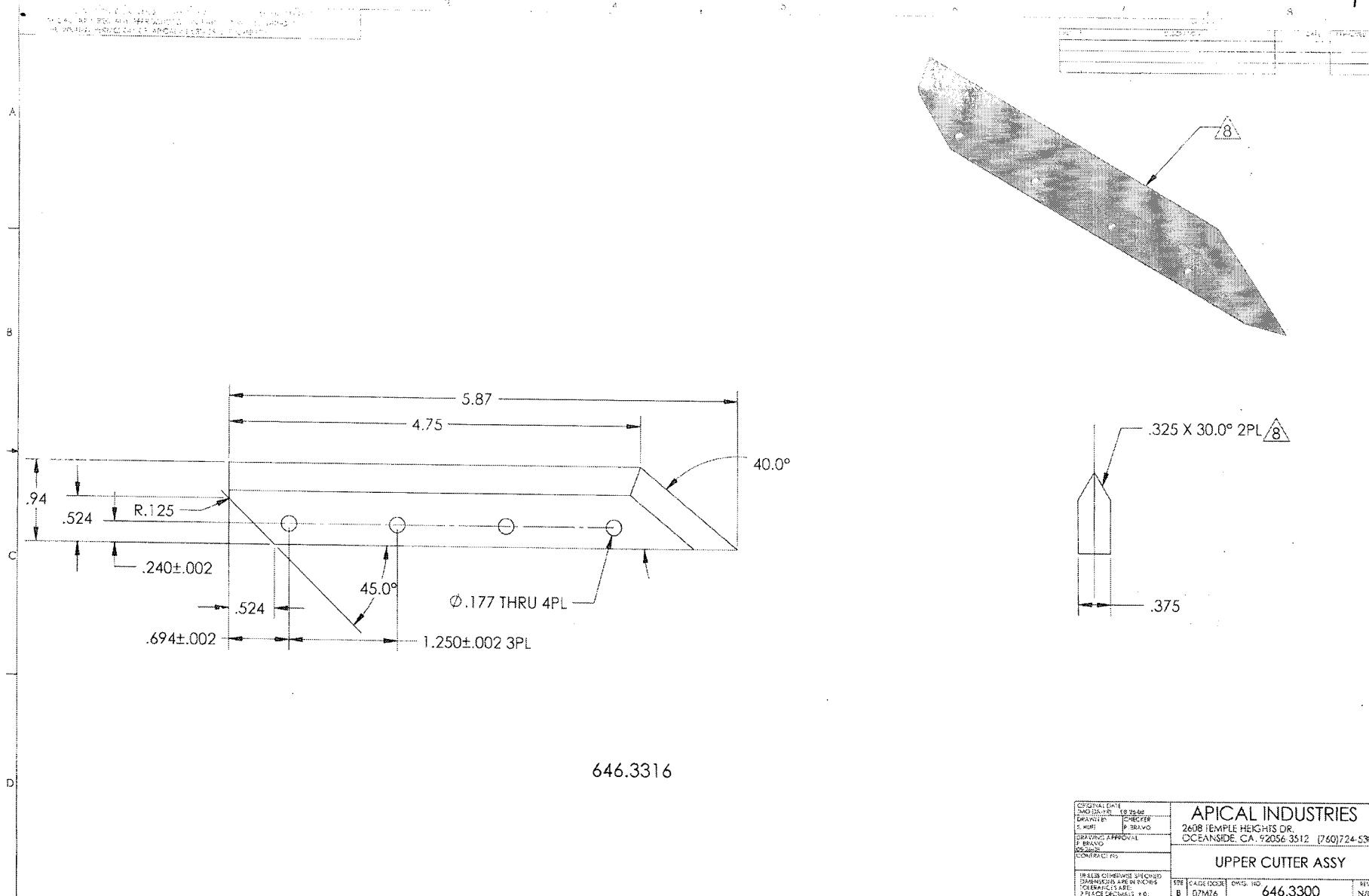


D

646.3315

ORIGINAL DATE MAY 10, 1983	REVISION DATE 7-1-83	DESIGNER P. BRAVO	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300
CHANGER APPROVAL P. BRAVO	CHANGER APPROVAL P. BRAVO	CHANGER APPROVAL P. BRAVO	CHANGER APPROVAL P. BRAVO
CONTRACT NO.	CONTRACT NO.	CONTRACT NO.	CONTRACT NO.
APICAL INDUSTRIES SPECIFIED DIMENSIONS ARE IN INCHES			
ALL PARTS ARE .010 OVER AND UNDER			
3 PLACE DECIMALS 4 PLACES DECIMALS			
ANGLE 2 3°	ANGLE 2 3°	ANGLE 2 3°	ANGLE 2 3°
REF CAGE CROWN ENCL 4			
B 07M16	B 07M16	B 07M16	B 07M16
SCALE NONE	SCALE NONE	SCALE NONE	SCALE NONE
SHEET 7 OF 8			

93261





A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 62107

Date: 12-Dec-12

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via
Quantity	Description	Rev:
1 lot	Part: ASST 8 PCS 647.1610 5 PCS 647.1612 2 PCS 647.1713 6 PCS 647.1811 1 PC 647.1816 1 PC 647.1817 8 PCS 647.1818 11 PCS 646.3210 20 PCS 646.3313 10 PCS 646.3717 20 PCS 646.3717 16 PCS 647.4610 10 PCS 649.4811 10 PCS 649.4812 24 PCS 649.4814 30 PCS 649.4815 6 PCS 647.7913 3 PCS 647.7919 10 PCS 647.9010 10 PCS 647.9011 15 PCS 647.9012 40 PCS 647.9013 60 PCS 646.9710 HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2	
	Job: 20120768	PO: PO18506
		Line:
	Certificate of Conformance	
	A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.	
	ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY	
	DATE: 12/12/12	



A.T.G. Industries Inc.
731, rue Industrielle Rd.
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Ph: (613) 446-4544
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Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms	Ship Via
Quantity	Description
	CERTIFIED SIGNATURE: <u>Mr</u> RECEIVER SIGNATURE: <u>Polymer</u>